KARASIK, G.A.; KOSOLAPOV, I.I.; GUSEV, V.N., inzhener, laureat Stelinskikh premiy, retsenzent; BOGORAD, I.Ya., kandidat tekhnicheskikh nsuk, laureat Stelinskoy premii, retsenzent; SLONIMSKIY, V.I., kandidat tekhnicheskikh nsuk, dotsent, redaktor; POL'SKAYA, P.G., tekhnicheskiy redaktor

[Construction of anode-mechanical cutting and grinding machines]

Konstruirovanie anodno-mekhanicheskikh otreznykh i zatochnykh stankov.

Hoskva, Gos. nauchno-tekhn. izd-vo mashinostroit. let-ry, 1951. 238 p.

[Microfilm] (HURA 10:1)

(Cutting tools) (Grinding machines)

KARASIK, G. A.

Stakhanovite methods in anodic-mechanical cutter sharpening; experience of the "Vulkan" plant. Leningrad, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry Leningradskoe otd-nie 1953. h7 p. (Novatory proizvodstva) (5h-18915)

TJ1230.K27

KARASIK, G.A. Requirements must be made and an anodemeches for an ano

Reequipping metal-cutting machines for anodemechanical operation. Stan. i instr. no.6:9-17 Je '53. (Machines (Machines))

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620010-3

KARASIK, G. A.

Anodno-mekhanicheskaia rezka metallov (Anode-medianical medal cutting). Leningrad, Lenizdat, 195h. 110 p.

10; Fonthly List of Bussian Accessions, Vol. 7, No. 7, Oct. 1954

MALIKOV, K.V.; KANOVA, R.A.; KARASIK, G.S.; LINETSKIY, N.S.;
PASTUKHOV, G.M.; PUSHKINA, C.A.

Simultaneous gasification of peat and peat tar. Gaz. prom. 8
no.2:15-17 '63.

(MIRA 17:8)

16(1) 16.3400 16.3400

AUTHOR:

Karasik, G.Ya.

SOV/155-58-4-7/34

TITLE:

On the Conservation of a Periodic Solution Under Passage From Differential Equations to Difference Equations (O sokhranenii periodicheskogo resheniya pri perekhode ot differentsial'nykh uravneniy k konechno - raznostnym)

•

Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki, 1958, Nr 4, pp 43 - 46 (USSR)

ABSTRACT:

PERIODICAL:

Let the system of equations

(1)
$$\frac{dx_i}{dt} = X_i (t, x_1, ..., x_n)$$

and the corresponding system of difference equations

(2)
$$\frac{\Delta x_{im}^{h}}{h} = Y_{i} (t_{m}, x_{1m}^{h}, ..., x_{max}^{h}, h)$$

be considered. Let (1) possess a periodic solution

Card 1/2

X

On the Conservation of a Periodic Solution Under Passage SOV/155-58-4-7/34 From Differential Equations to Difference Equations

(3) $x_i = \varphi_i$ (t) with the period ω .

Theorem: If (3) is asymptotically stable, then for sufficiently small h (2) possesses at least one periodic solution with the period ωq , where q is an integer.

Theorem: If the characteristic exponents of (3) have a real

Theorems If the characteristic exponents of (3) have a real part different from (), then for sufficiently small h (2) possesses a unique periodic solution with the period ω which for h>0 passes into (3).

Theorem: If all characteristic exponents of (3) have a negative real part, then for sufficiently small h (2) possesses a uniformly asymptotically stable periodic solution with the period ω . The author thanks Ye.A. Barbashin for advices. There are 7 Soviet references.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet imeni A.M. Gor'kogo

(Urals State University imeni A.M. Gor'kiy)

SUBMITTED: May 30, 1958

Card 2/2

11

16(1) AUTHOR:

Karasik, G.Ya.

SOV/140-59-4-10/26

TITLE:

On Conditions for the Existence of Periodic Solutions of

Difference Equations

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959,

Nr 4, pp 70 - 79 (USSR)

ABSTRACT:

The author gives sufficient conditions for the existence of periodic solutions for systems of difference equations with periodic right sides and conditions for asymptotic stability of these solutions. He investigates the question when the periodic solutions are maintained under transition from systems of differential equations to systems of difference equations. The formulated mine theorems are analogous in a certain sense to the well-known results of [Ref 3,6,7,10_7 and are proved with the aid of them. The paper was written

under guidance of Ye.A. Barbashin.

There are 10 references, 8 of which are Soviet, 1 German,

Card 1/2

On Conditions for the Existence of Periodic Solutions of Difference Equations

SOV/140-59-4-10/26

and 1 Japanese.

ASSOCIATION: Ural'skiy gosuđarstvennyy universitet imeni A.M. Gor'kogo (Ural State University imeni A.M. Gor'kiy)

SUBMITTED:

May 23, 1958

Card 2/2

86182

s/140/60/000/005/009/021 C111/C222

16.3900

AUTHOR: Karasik, G.Ya.

TITLE: The Method of the Small Parameter for Iteration Systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1960, No. 5, pp. 74 - 85

TEXT: With the aid of the method of the small parameter the author investigates periodic solutions of the system of equations

(3.1) $x_{im+1} = a_{i1}x_{1m} + \cdots + a_{in}x_{nm} + f_{im} + \mu F_{im}(x_{1m}, \dots, x_{nm}, \mu)i=1, \dots, n$

Here a are constants; imare periodic iterations with the period k, i.e. $f_{im+k} = f_{im}$; $F_{im}(x_1, \dots, x_n, \mu)$ are functions continuously differentiable with respect to x_1, x_2, \dots, x_n , μ in G, $0 \le \mu \le \mu_0$, and periodic in the index m, i.e. $F_{im+k} = F_{im}$; μ is a small parameter.

At first it is stated that

(1.1) $x_{im+1} = a_{i1}x_{1m} + \cdots + a_{in}x_{nm}$

Card 1/4

 $\langle \rangle$

86182

S/140/60/000/005/009/021 C111/C222 The Method of the Small Parameter for Iteration Systems

have periodic solutions of the period k if the equation

have periodic solutions of the period k 12 have
$$(1.2) \left| \left\{ a_{ij} - \lambda \delta_{ij} \right\}_{1}^{n} \right| = 0$$

has the critical roots $\lambda = e$

vestigation of (2.1)
 $x_{im+1} = a_{i1}x_{1m} + \dots + a_{in}x_{nm} + f_{im} \quad (i = 1, \dots, n)$

If (1.2) has no critical roots then for arbitrary f_{im} , (2.1) has only one periodic solution with the period k. If (1.2) has q critical roots to which there correspond r periodic solutions ψ_{im} , φ_{im}^{r} of (1.1) then the system conjugate to (1.1) has also r periodic solutions ψ_{im} , ψ_{im}^{r}

The conditions $\sum_{p=0}^{k-1} \sum_{s=1}^{n} f_{sp} \psi_{sp+1}^{j} = 0 \quad (j = 1,...,r)$ Card 2/4

The Method of the Small Parameter for Iteration Systems

86182 \$/140/60/000/005/009/021 C111/C222

are necessary and sufficient that (2.1) has the periodic solution

(2.10)
$$x_{im} = M_1 \gamma_{im}^i + ... + M_r \gamma_{im}^r + \omega_{im}$$

where $\omega_{\rm im}$ is a special periodic solution of (2.1) with the period k and M_1,\ldots,M_r are arbitrary constants.

Now (3.1) is investigated. It is stated (theorems 1,2); If (1.2) has no critical roots then, for sufficiently small μ , there exists a single periodic solution with the period k which for $\mu = 0$ changes to the generating solution of (2.1); if (1.2) has critical roots then, for sufficiently small μ , (3.1) has a periodic solution with the period k which for $\mu = 0$ changes to the generating solution χ^* = χ^* χ^* χ^* + ... χ^* χ^* χ^* of (2.1) if the condition

(3.8) $P_{j}^{*}(M_{1}^{*},...,M_{r}^{*}) = \sum_{p=0}^{k-1} \sum_{i=1}^{n} F_{ip}(x_{1p}^{*},...,x_{np}^{*},0) \cdot \psi_{ip+1}^{j} \approx 0$ is Card 3/4

W

86132

The Method of the Small Parameter for Iteration Systems

S/140/60/000/005/009/021 C111/C222

Finally, under the assumption that the right sides of (3.1) are analytic in x_1, \dots, x_n, μ , the author investigates the stability of the periodic solution of (3.1). It is stated (theorems 3,4) that this solution is asymptotically stable for sufficiently small μ if all non-critical roots of (1.2) are smaller than one with respect to the absolute value, and all roots of the auxiliary equation

(4.9)
$$\left\{ \mu \frac{\partial P_{j}^{*}}{\partial M_{k}^{*}} - kb^{p_{j}} \delta_{r_{j}} \right\}_{1}^{r} = 0$$
are simple and have negative real parts.

are simple and have negative real parts; here p is the number of solutions corresponding to the j-th critical root while b is a series in μ which has to be determined separately.

The author mentions S.N. Shimanov. There are 7 Soviet references.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet (Ural State University)
SUBMITTED: September 22, 1959

Card 4/4

K

5/144/60/000/009/005/007 E041/E135

AUTHORS:

Pechornia, I.N. (Docent), and Karasik, G.Ya.

TITLE:

Determination of the Coefficients of <u>Transfer Functions</u> of Linearized Systems of Second and Third Order on the Basis of Experimentally Determined Curves of Transient

Behaviour

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,

Elektromekhanika, 1960, No. 9, pp 88-94

This problem has been often studied and in particular TEXT: monotonic responses yield easily to the method proposed by M.P. Simoyu (Ref.4). Oscillatory responses are more awkward and the present note introduces a convenient solution. The solution to the equation

 $W(s) = \frac{K}{as^2 + s + 1}$

where $s = b_1p$, $a = b_2/b_1^2$, is plotted in Fig. 1. The solid lines have various values of a and represent y(t), $t = t/b_1$. If experimental curves are superimposed on this field, the coefficients may be found by comparison of coincident curves. Card 1/+

S/144/60/000/009/005/007 E041/E135

Determination of the Coefficients of Transfer Functions of Linearized Systems of Second and Third Order on the Basis of Experimentally Determined Curves of Transient Behaviour

Non-coincidence may of course be due to the unsuspected presence of extra derivatives on the right-hand side of the equation, as for example

 $W(p) = K \frac{c_1 p + 1}{b_2 p^2 + b_1 p + 1}$

The coefficients b_1 , b_2 and c are found as follows. From the transient response curve the area is found between the curve and x = K and divided by K. The value of t_m (at which x(t) has a turning value) is found for the differential equation in x corresponding to W(p). The value of the function x_m is also found at the turning point. Values of a, y_0 and t may now be read off using the additional curves in Fig. 1. Then,

 $b_1 = t_m/T_m$; $b_2 = b_1^2 a$; $c_1 = (y_0^{1/b_1})b_2$, where T_m is given by $T_m = \frac{1}{a}$ are $tg = \frac{y_0^{1/b_1}}{a}$ (3)

S/144/60/000/009/005/007 E041/E135

Determination of the Coefficients of Transfer Functions of Linearized Systems of Second and Third Order on the Basis of Experimentally Determined Curves of Transient Behaviour

If the curve of $y(\tau)$ is subtracted from the experimental curve the resultant may be compared with the curves in Fig. 1. Calculation of $y(\tau)$ requires the auxiliary function $z(\tau)$ given in Fig. 2. For third order curves by is first calculated as before. The substitutions

$$b_3/b_1^3 = a\gamma, \quad b_2/b_1^2 = a + \gamma - \gamma^2$$

$$b_3/b_1^3 = a\gamma$$
, $b_2/b_1^2 = a + \gamma - \gamma^2$
are then made. Quantities y_m and τ_m given in
$$y_m = -e^{-a\tau_m} / a/(a - \gamma + 2\gamma^2)$$
(5)

$$T_{\rm m} = \frac{1}{10} \left[T + \text{arc tg} \frac{2a - \gamma + \gamma^2}{2a\gamma \omega} \right]$$
 (6)

are plotted in Fig. 3, for various values of a. Values of ym and τ_{m} are estimated from the experimental curves. Card 3/4

\$/144/60/000/009/005/007 E041/E135

Determination of the Coefficients of Transfer Functions of I inearized Systems of Second and Third Order on the Basis of Experimentally Determined Curves of Transient Behaviour

Experimental and typical curves are compared for $\gamma \neq 0$ and an approximate value of a is obtained and then γ and τ_{m} are determined from the graphs in Fig. 3. By comparing the latter with known values, corrections are obtained. The appendix gives worked examples for transient process curves, as shown in Figs.4

There are 5 figures and 5 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural'sk Polytechnical Institute)

SUBMITTED: April 17, 1960

Card 4/4

KARASIK, G. YA., CAND PHYS-MATH SCI, "MONLINEAR OSCILLATIONS CHREMSCRIBED BY ITERATION SYSTEMS." SVERDLOVSK, 1961.

(URAL AFFILIATE ACAD SCI USSR, DEPT OF POWER ENGINEERING AND AUTOMATION). (KL, 3-61, 203).

50

27308 S/199/61/002/004/004/007 B112/B108

16,3400

AUTHOR:

Karasik, G. Ya.

TITLE:

Existence of periodic solutions of a system of differential

equations with retarded argument

PERIODICAL: Sibirskiy matematicheskiy zhurnal, v. 2, no. 4, 1961, 551 -

TEXT: The author considers the following system of equations: $\frac{dx_i}{dt} = X_i(t, x_j(t), x_j(t-h_{ij}(t))) + f_i(t), \quad (i, j = 1, ..., n) \quad (1)$ $X_i(t, 0, ..., 0) = 0 \text{ for } t \ge 0. \text{ The functions } X_i(t, y_1, ..., y_{2n}) \text{ are continuous}$

and satisfy the Lipschitz condition

 $\begin{array}{l} \left| \begin{array}{l} X_{\underline{i}}(t,\overline{y}_{1},\ldots,\overline{y}_{2n}) - X_{\underline{i}}(t,\overline{y}_{1},\ldots,\overline{y}_{2n}) \right| \leq L \sup \left\{ \left| \begin{array}{l} \overline{y}_{1} - \overline{y}_{1} \right|,\ldots,\left| \begin{array}{l} \overline{y}_{n} - \overline{y}_{n} \right| \right\} \\ \{\underline{t} \geq 0, \ \overline{y} - \overline{y}_{1},\ldots,\overline{y}_{n} \}, & \text{with respect to } t, \text{ they are periodic with the period} \\ \omega, & f_{\underline{i}}(t) \text{ and the retardations } h_{\underline{i}\underline{j}}(t) \text{ are bounded } \left(0 \leq h_{\underline{i}\underline{j}}(t) \leq h, \right) \end{array}$ $|f_i(t)| \leq F$) functions with the period ω . ω is assumed to be greater than

Card 1/3

27308 5/199/61/002/004/004/007

B112/B108

Existence of periodic solutions of a

h. The author derives some sufficient conditions for periodic (ω) solutions of (1). Theorem 1: the system (1) has a unique periodic (ω) solution

which for $t \to \infty$ is approximated asymptotically by each solution of the system, then and only then of all solutions of the system are bounded for $t \to t_0$ and if $\lim_{t\to\infty} \left| \bar{x}_i(t) - \bar{x}_i(t) \right| = 0$ (i = 1,...,n) holds for two arbitrary solutions \bar{x}_i and \bar{x}_i of system (1). Theorem 2: if an arbitrary solution $u_i(u_0(t_0-\theta),t)$ of the system $du_i/dt = X_i(t,u_j(t)), u_j(t-h_{ij}(t))$

 $\begin{array}{lll} u_{1}(u_{0}(t_{0}-W),t) & \text{of the system d} u_{1}/\text{d}t = X_{1}(t,u_{j}(t)), u_{j}(t-h_{ij}(t))) \\ (i,j=1,\ldots,n) & \text{(3)} & \text{from the domain} & y(t-N) & \infty & \text{satisfies the condition} \\ \|u(u_{0}(t-N),t) - v\|_{\infty} \leq B\|u_{0}(t-N)\|_{\infty} & e^{-\alpha(t-t_{0})}, t \geq t, t \geq h \end{array}$

 $\|u(u_o(t-\mathcal{S}),t)-\tau\|_{\mathbf{T}} \leq B\|u_o(t_o-\mathcal{S})\|_{\mathcal{S}} e^{-\alpha(t-t_o)}, \ t > t_o, \ t_o > h \quad \text{and if the partial derivatives } \partial X_i/\partial y_j \text{ satisfy the Lipschitz condition with a}$

constant $L_1 \leq \frac{c_1c_3^2 - \alpha}{2nc_2c_4^2 F + \beta}$

then system (1) has a unique

Card 2/3

27308

Existence of periodic solutions of a ...

S/199/61/002/004/004/007 B112/B108

periodic (ω) solution which for $t\to\infty$ is asymptotically approximated by every solution of the system. Theorem 3: If a symmetric matrix $A=\begin{vmatrix} a & b \\ a & 1 \end{vmatrix} \begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$

with eigenvalues $\,\lambda_{\rm i}>$ 0 exists for which the conditions

$$\sum_{i,j=1}^{2n} d_{ij} z_i z_j \leq - \mu \sum_{i=1}^{n} z_i^2 \text{ for } \sum_{j=n+1}^{2n} z_j^2 \leq \frac{\lambda_{\max}}{\lambda_{\min}} \sum_{i=1}^{n} z_i^2,$$

$$d_{ij} = \sum_{k=1}^{n} a_{ik} \partial x_{k} / \partial y_{j} + a_{jk} \partial x_{k} / \partial y_{i} \text{ for } i \leq n, j \leq n,$$

$$d_{ij} = \sum_{k=1}^{n} a_{ik} \partial x_{k} / \partial y_{j}$$
 for $i \ge n$, $j \ge n$,

$$d_{ij} = 0 \text{ for } i > n, j > n \quad (0 \le t \angle \infty, j = 1,...,2n)$$

are satisfied, then system (1) has a unique periodic (ω) solution which for $t \to \infty$ is asymptotically approximated by every solution of the system. There are 4 references: 3 Soviet and 1 non-Soviet.

SUBMITTED: September 12, 1959 Card 3/3

APPROVED FOR RELEASE: 06/13/2000 CI

CIA-RDP86-00513R000720620010-3"

16,3400

S/044/62/000/003/027/092

AUTHOR:

Karasik, G. Ya.

TITLE:

On the continued existence of the periodic solution when changing from differential to difference equations

PERIODICAL: Referativnyy zhurnal, Matematika, no. 3, 1962, 49, abstract 3B225. ("Nauchn. dokl. vyssh. shkoly. Fiz.-matem.

n.," 1958, no. 4, 43-46)

TEXT:

The system of differential equations

$$\frac{dx_{i}}{dt} = X_{i}(t, x_{1}, ..., x_{n}), i = 1, ..., n$$
 (1)

is considered, as well as the system of difference equations

$$\frac{x_{i,m+1}^{h} - x_{i,m}^{h}}{h} = Y_{i}(t_{m}, x_{1,m}^{h}, \dots, x_{n,m}^{h}, h) i = 1, \dots, n, \qquad (2)$$

where $t_m = t_0 = mh$, $x_{im}^h = x_i^h(t_m)$; the function x_i , x_i , $\partial x_i/\partial x_j$, $\partial x_i/\partial x_j$ Card 1/2

S/044/62/000/003/027/092 On the continued existence of the periodic—C111/C222 are continuous and have the period ω in t; $Y_i \equiv X_i$ for h = 0. It is assumed that (1) has the periodic solution

$$x_{i} = \varphi_{i}(t), i = 1,...,n$$
 (3)

Theorem 1: If solution (3) is asymptotically stable, then (2) has for every sufficiently small $h(h=\omega/k, k-integer)$ a solution of period (19, where q is a certain integral number.

Theorem 2: If the characteristic exponents of solution (3) have real parts not equal to zero, then (2) has for sufficiently small h a unique periodic solution with the period ω , which for h \rightarrow 0 tends to (3). If these real parts are negative, then the periodic solution of (2) is asymptotically stable.

Abstracter's note: Complete translation.

Card 2/2

PECHORINA, Irina Nikolayevna, dotsent; KARASIK, Geda Yankelevna, mladshiy nauchnyy sotrudnik

Determination of the coefficients of the transfer functions of linearalized second and third order systems using an experimentally derived curve of the transient process. Izv. vys. ucheb. zav.; elektromekh. 3 no.9:88-93 '60. (MRA 15:5)

1. Zaveduyushchaya kafedroy avtomatiki i telemekhaniki Ural'skogo politekhnicheskogo instituta (for Pechorina).

2. Ural skiy filial AM SSSR (for Karasik).

(Automatic control)
(Transients (Electricity))

KARASIK, G.Ye.: KYAZIMOV, Ya.R., redaktor; ISRAFILOV, K.I., tekhnicheskiy redaktor.

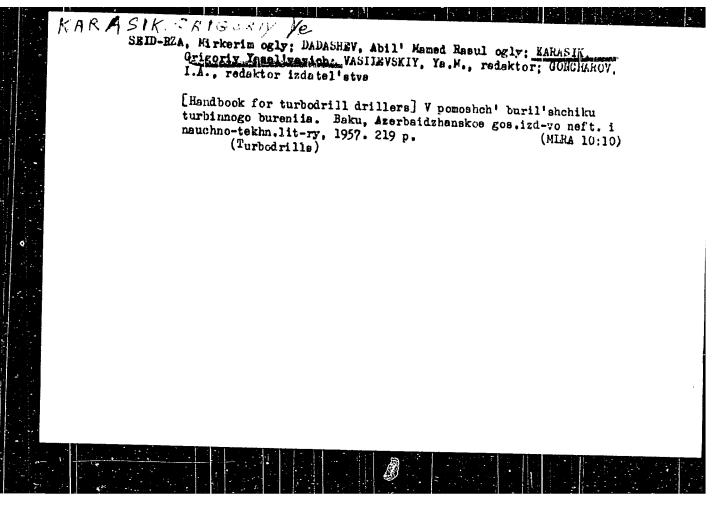
[Boring small wells with turbodrills; the practice of the Kirov Drilling office of the Ministry of the Petroleum Industry of the Azerbaijan S.S.R.] Burenie melkikh skvazhin turbinnym sposobom; iz opyta Kirovskoi kontory bureniia Ministerstva neftianoi promyshlennosti Azerbaidzhanskoi SSR.Baku, Aznefte - izdat, 1954. 23 p.[Microfilm] (MIRA 10:6)

KYAZIMOV, Yakub Rza ogly; KARASIK, Grigoriy Yesel'yevich; SEIDRZA, M., redaktor; AL'TMAN, T.B., tekhnicheskiy redaktor

[Experience indrilling extradeep offshore wells] Iz opyta burenila sverkhglubokikh skvazhin v more. Baku, Azerbaidzhanskoe gos. izd-vo neftianoi i nauchno-tekhn. lit-ry, 1955. 45 p. (MLRA 9:9)

(Oil well drilling, Submarine)

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620010-3



"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620010-3

KARASIK, G. /e.

AUTHOR:

Karasik, G., Engineer

SOY/92-58-7-31/37

TIPLE:

Drillers from Kuybyshev in Baku (Kuybyshevskiye buroviki v Baku)

PERIODICAL: Neftyanik, 1958, Nr 7, pp 32-33 (USSR)

ABSTRACT:

A delegation of drillers from Kuybyshev went to Baku in order to learn about the peculiar drilling conditions prevailing in the southern regions of the country. In Azerbaydzhan, where oil wells are sunk to a depth of some 5,000 m., the drillers have acquired a vast drilling experience, and their knowledge may serve as a source

of useful information for others. Therefore, members of the Kuybyshev delegation studied the innovations introduced in

Azerbaydzhan. They took note of the methods used in distributing

and erecting drilling rigs, and they were : mpressed to see

compensators installed directly on pumps, as suggested by engineer A. Rustambekov. The guests from Kuybyshev visited the "Utyazhelitel" factory, where special compounds to increase the weight of the drilling mid are prepared. They also visited the offshore drilling installations and studied construction methods employed there. Their contact with the Baku drillers proved to be very useful and will probably help them to

reduce the drilling costs in the Kuybyshev oilfields.

1. Petroleum industry. 2. Personnel—Training

Card 1/1

22(1)

SOV/92-58-8-29/36

AUTHOR: Karasik, G.

TITLE: Readers Are Discussing the Content of Books Written by Oil Producers (Chitateli obsuzhdayut knigi avtorov-proizvodstvennikov)

PERIODICAL: Neftyanik, 1958, Nr 8, p 31 (USSR)

ABSTRACT: The author states that the Gyurgyanneft' Administration and the Central Scientific and Technical Library have organized a conference in Baku to discuss the pamphlet headed "Neftyanyye Kamni" by Kurban Abasov and Eduard Karash, as well as the pamphlet headed "We Drill in the Sea" by the master-driller Yusif Kerlmov. Engineers and drillers, who participated in the above conference, approved the content of both pamphlets and appreciated the initiative of the conference organizers.

Card 1/1

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620010-3

AUTHORS:

Itel'son, L., Candidate of Technical

SOV/29-58-10-3/28

Sciences, Karnsik, G., Engineer, Baku

TITLE:

Planetary-Drilling (Planetarnoye bureniye)

PERIODICAL:

Tekhnika molodezhi, 1958, Nr 10, pp 4 - 4, 29 - 29 (USSR)

ABSTRACT:

The Collective of the Azerbaydzhanskiy institut neftyanogo

mashinostroyeniya (Institute of Petroleum Machine

Building, Azerbaydzhan) started to work out a new so-called

planetary-drilling method which was suggested by A.S. Artyumov. After a long time of investigations the scientists succeeded in developing such a method and in finding a suitable device for it. This device is very simple: The big chisel which rotates about its own axis and about the axis of the borehole was replaced by two smaller chisels. The axes of rotation of the chisels are in parallel position, the center of the borehole is between them. Both chisels rotate simultaneously and with the same speed. This device has an outstanding property:

As soon as the chisels start rotating thanks to the reactive force also the entire system starts to rotate

Card 1/2

1.4(5)

sov/92-58-11-14/36

AUTHOR:

Karasik, G. Ye.

TITLE:

We Improved the Turbo-drill (My uluchshili turbobur)

PERIODICAL: Neftyanik, 1958, Nr 11, p 18 (USSR)

ABSTRACT:

In view of the fact that most of the offshore oil wells exploited by the Artemneft' Petroleum Production Administration are located at about 15-18 km from the coast, it was rather difficult to arrange a regular replacement of turbo-drills to be reconditioned on the main land. The problem of reducing the turbo-drill turnover was studied by M. Sorokin. He found that parts of the upper section of this tool wear out in 45-50 hours, while other parts can operate without overhaul for 200 hours, Va

. Consequently, M. Sorokin decided to change the upper bearing of this late model turbo-drill, and to replace it with a bearing of the type similar to that used in the old Tl4 turbo-drill. The remodeled turbo-drills proved to be very useful in offshore drilling. They work without vibration and are driven by the B2-300 engine. As a result of Sorokin's innovation, the turbo-drill turnover was reduced and the problem of transporting turbo-drills back and forth to the mainland resolved.

Card 1/1

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620010-3

. 14(5)

sov/92-59-2-6/40

AUTHOR:

Karasik, G.Ye., Engineer

TITLE:

We Use Sectional Turbodrills in Directional Drilling (Naklonno-

napravlennyye skvazhiny burim sektsionnymi turboburami)

PERIODICAL: Neftyanik, 1959, Nr 2, pp 8-9 (USSR)

ABSTRACT: The author states that the superiority of sectional turbodrills over the conventional has been proved in the course of drilling operations carried out in the Azerbaydzhan oilfields. It was not clear, however, whether it is possible to use the sectional turbodrill, which is 15 m. long, for directional drilling. The crew of young drillers, headed by master-driller Z. Rustamov and engineer N.Barkov, tried to use the sectional turbodrill in drilling a well with a deflection of 200 m. their efforts proved to be successful and the drilling speed rate they attained has shown an increase of 100 percent. The drawback of the sectional turbodrill was the impossibility of lowering it into a defected well with the attached whipstock. It was therefore found necessary to redesign the turbodrill. This was done by Engineer Agasaf Movsumov who developed a new joint connecting the shafts and housing of the two sections of the turbodrill as shown in Fig. 1. This joint permits a deflection of 1-2°. In order Card 1/2

We Use Sectional Turbodrills (Cont.)

sov/92-59-2-6/40

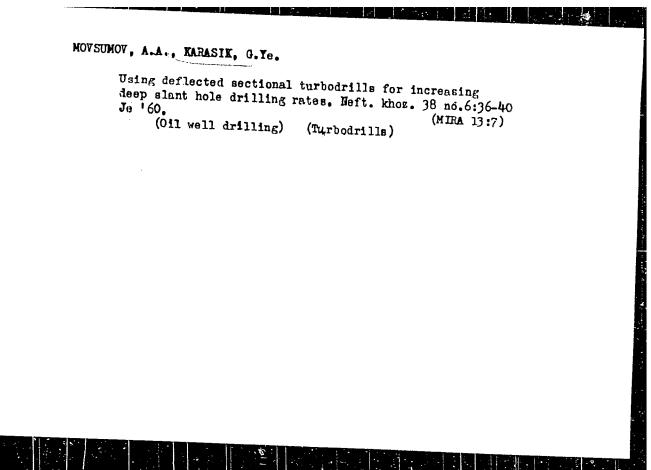
to orient the sectional turbodrill, when lowering it, its upper section is provided with a direction changer as shown in Fig. 2. The author describes the parts of the changer and explains how it is attached to the turbodrill section. With the remodeled sectional turbodrill it is possible to deflect the drill stem at a greater depth and to obtain a larger deflection. The sectional turbodrill of the new system can be used for drilling the whole stem of a well. The Azerbaydzhan experimentation office redesigned several TS4-8" turbodrills and tested the new system in the petroliferous area, Neftyanyye Kamni, where a well 1310 m deep was drilled with a sectional turbodrill. A directional turbodrill was used there to drill 320 m. Drilling results were good. The footage per trip increased 42-52 percent, and the mechanical speed 33-62 percent. In the near future sectional turbodrills, remodeled as suggested by A. Movsumov, will be used for drilling deep offshore oil wells. There are 2 figures.

ASSOCIATION: Upravleniye po bureniyu MNP AzSSR (Drilling Administration of the Ministry of Petroleum Industry of the AzSSR)

Card 2/2

TER_GRIGOR'YAN, A.I., inzh.; AVETISYAN, A.A., inzh.; GASAN_DZHALALOY,
A.B., inzh.; GUKHMAN, M.I., inzh. [deceased]; DAVTYAN, S.Kh.,
inzh.; DADASHEV, B.B., kand.tekhn.nauk [deceased]; DANIYELYANTS,
A.A., inzh.; DEDUSENKO, G.Ya., kand.tekhn.nauk; IOANESYAN, R.A.,
inzh.; KARASIK, 7.Ye., inzh.; KULLIEV, I.P., kand.tekhn.nauk;
KULL-ZADE, K.N., kand.tekhn.nouk; LANGLEBEN, M.L., kand.tekhn.
nauk; MADERA, R.S., inzh.[deceased]; MIKHAYLOV, V.R., inzh.;
MURADOV, I.M., inzh.; POLTAKOV, Z.D., inzh.; PROTASOV, G.N., kand.
tekhn.nauk; SAROYAN, A.Ye., kand.tekhn.nauk; SEID-RZA, M.K., kand.
tekhn.nauk; TARANKOV, V.Y., inzh.; FRIDMAN, M.Ye., inzh.; SHNEYDEROV,
M.R., kand.tekhn.nauk; YAISHNIKOVA, Ye.A., kand.tekhn.nauk; SHTEINGEL', A.S., red.izd-va

[Driller's handbook] Spravochnik burovogo mastera. Izd.2., ispr. i dop. Baku, Azerbaidzhanskoe gos.izd.vo neft.i nauchno-tekhn.lit-ry, 1960. 783 p. (Oil well drilling) (MIRA 13:5)



"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620010-3

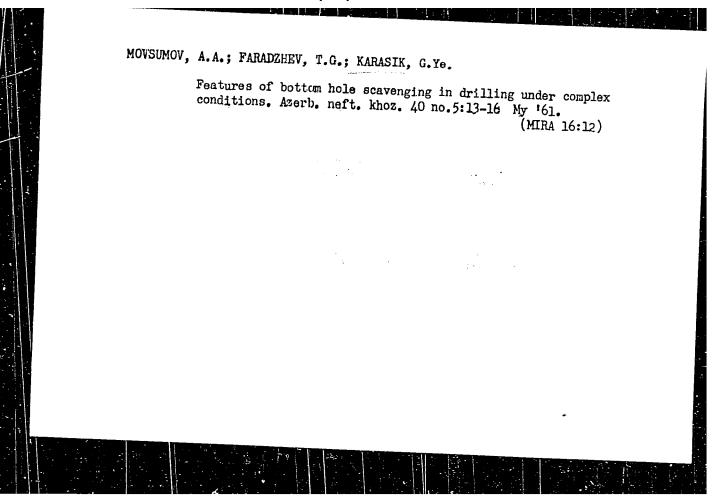
EARASIK, G.Ye.; MIRONYCHEV, V.; YEGOROV, I.; BATYROV, R.; DZUSOV, B.;

VAKHRAMEYEV, A.

In the oil regions of our country. Neftianik 6 no.1:30-33 Ja '61.

(Petroleum industry)

New tools for core drilling. Azerb. neft. khoz. 39 no.1:18-19
Ja '60. (Core drilling)



SHATSOV, N.I.; RAKOV, P.P., inzh.; AVETISOV, A.A., inzh.; DANIYELYAN, A.A.; HERLIN, S.G.; GLYADKOVA, V.I., starshiy tekhnik; KARASIK, G.Ye., inzh.

Standardized oil well drilling terminology. Neft. khoz. 40 no.5:66-69 My '62. (MIRA 15:9)

1. Gosudarstvennyy komitet Soveta Ministrov RSFSR po
koordinatsii nauchno-issledovatel'skikh rabot (for Rakov).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut po tekhnike
bezopasnosti v neftyanov promyshlemnosti (for Avetisov). 3. Azerbedydzhanskiy nauchno-issledovatel'skiy institut neftyanogo mashinostroyeniya (for Daniyelyan, Berlin). 4. Bashnefteproyekt
(for Glyadkova). 5. Gosudarstvennoye ob"yedineniye Azerbaydzhanskoy
neftyanov promyshlennosti (for Karasik).

(Oil well drilling--Terminology)

PED'KO, A.I.; KARASIK, G.Ye.

Efficient supports of roller bits. Mash. i neft. obor. nc.8:16-17 (MIRA 18:9)

l. Azerbaydzhanskiy institut nefti i khimil lm. H. Amizbekova i "Glavmornefti".

PED'KO, A.I.; DERGUNOV, V.I.; KARASIK, G.Ye.; KOROLEV, A.K.

Effect of the dimensions of bit-support elements on the jamming of cutters. Izv. vys. ucheb. zav.; neft' i gaz. 8 no.5:101-104 '65. (MIRA 18:7)

l. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova; zavod neftyanogo oborudovaniya im. S.M.Kirova i upravleniye "Glavmorneft".

PODKOLZIN, P.S., KARASIK, I.B.

Blasting

Optimum single charges VV for blasting work in mining. Ugol' no. 6(315) June 1952

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

IERAYELIT, B.Z., dotsent; KARASIK, I.B., inwhener.

Efficiency in boring through "bunenka" (crumbling rock). Ugol' vol.28 no.11:
(MLRA 6:11)
(Boring)

KARASIK, I. B. — "Investigation of Certain Parameters of Explision Work in Tine Work in Homogeneous Rock." Min Higher Education USSA. "Oscow (Dissertation for the Degree of Candidate in Technical Sciences)

SOURCE Enthmaya Letonist, No 6, 1956

IZRAYELIT, B.Z., dotsent; VINNIK, I.V., inzh.; KARASIK, I.B., kand.
tekhn.mauk; TROTIMOV, V.P., gornyy inzh.; VOVK, A.A., gornyy
inzh.; SHAMRAY, G.A.

Response to I.Z.Detistov's article "hvaluating the efficiency
of explosives." Ugol' 35 no.3:58-61 Mr '60.
(MIRA 13:6)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet USSR.
(for Trofimov and Vovk).
(Coal mines and mining--Explosives)
(Detinter, I.E.)

Conditions for a maximum utilization of the explosion energy of blast hole explosive charges. Ugol' 37 no.1:28-32 Ja '62. (Blasting)

KARASIK, Iosif Grigor'yevich; TYUMENEVA, S.T., inzh., red.; FREGER, D.P., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[New portable equipment for flaw detection] Novaia portativnaia apparatura dlia defektoskopii. Leningrad, 1962. 21 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Kontrol' kachestva produktsii, no.4)

(Nondestructive testing—Equipment and supplies)

sov/137-59-5-10492

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 148 (USSR)

AUTHOR:

Karasik, I.I.

TITLE:

Improved Technology of Welding

PERIODICAL:

V sb.: Za novuyu tekhn i progressivn, tekhnol, Minsk, Gos.

izd-vo BSSR, 1958, pp 204 - 266

ABSTRACT:

The author describes measures to improve the quality of welded parts at the Minsk Tractor Plant. Changing-over to the manufacture of welded units of low-alloy structural steel state a means to improve their quality, since a satisfactory combination of mechanical properties can be obtained. Automation of welding operations makes it possible to switch over the the Continuous manufacture of welced assemblies and even to develop fully automated production lines. To maintain a required current pulse, ignitron interrupters were developed. At the plant, a device will be manufactured for high accuracy measurements of the

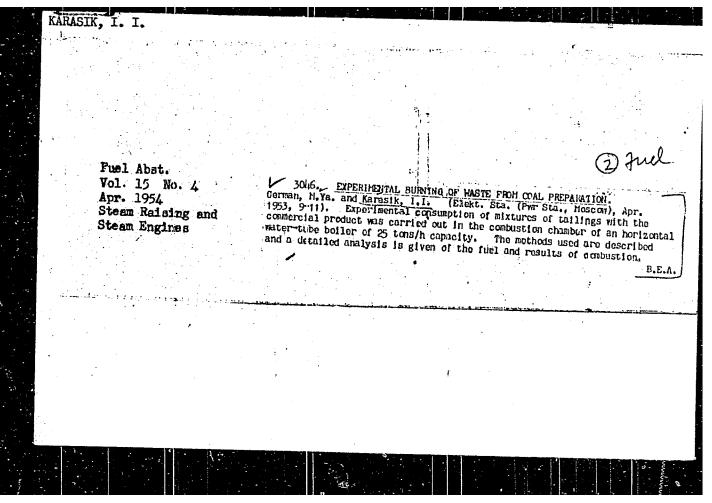
Card 1/2

effective current intensity value. Improved quality of welding

KARASIK, I. I.

"Industrial Utilization of Wastes From Coal-Mariching Factories of Coal-Tar Plants." Cand Tech Sci, Dnepropetrovsk Chemico-technological Inst, Dnepropetrovsk, 1953. (RZhKhim, No 4, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institu-



KARASIK, I. J.

USSR/Chemical Technology. Chemical Products and Their I-13 Applications -- Treatment of solid mineral fuels

Abs Jour: Ref Zhur-Khimmya, No 3, 1957, 9230

Author German, M. Ya. and Karasik, I. I. Inst

Dnepropetrovsk Chemical Engineering Institute Title The Utilization of Coal-Treatment Wastes in

Gasification

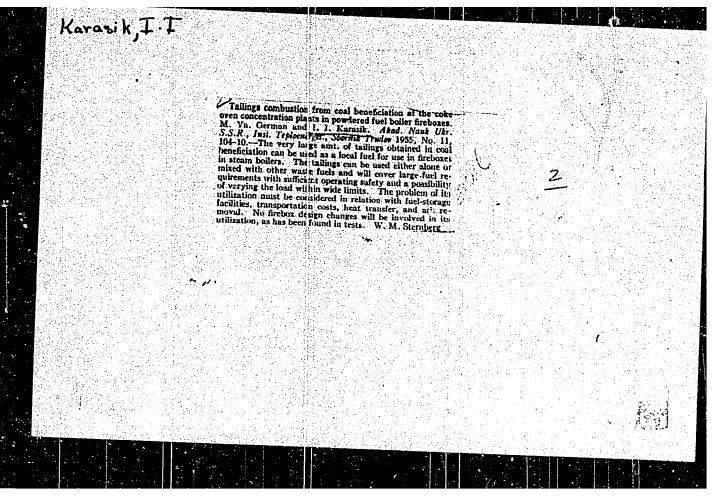
Orig Pub: Tr. Dnepropetr. khim.-tekhnol. in-ta, 1955, No 4,

155-161

Abstract: The results from experiments with the gasification of wastes from coal treatment operations (shale

tailings) in gas generators of 2.6 m diameter are presented. The wastes containing about 30% of combustible substances and 50-55% ash have been gasified with a steam-air blow with the addition of 20% coke dust (a waste product from the manufacture of coke) and 2% CaO (to reduce slagging and to break up the slag). The gas yield is

Card 1/2



GERMAN, M.Ya., KARASIK, I.I. Reduction of the hydrogen sulfide content of producer gas by the addition of alkali to coal. Trudy DKHTI no.10:127-129 '60. (MIRA 14:1) (Hydrogen sulfide)

(Gas producers)

KARASIK, I.I.

Specialized machines for friction welding. Avtom. svar. 18 no.3:44-47 Mr 165. (MIRA 18:6)

l. Bazovaya svarochnaya laboratoriya Belorusskogo soveta narodnogo khozymystva.

BOYKOV, V.V., inzh.; KARASIK, I.L., inzh.

New rock bit for rotary borehole drilling with water flushing. Shakht.stroi. 8 no.12:11-12 D 64. (MIRA 18:1)

1. Kuznetskiy mashinostroitel'nyy zavod.

BABUSHKINA, M.D.; BABAYEV, Yo.V.; KIR'YAKOV, M.F.; KARASIK, K.K.; SHARAPOVA, Z.I.; KRAPIVIN, I.N.

Industrial bubble-cap column for the production of sulfite acid by the milk-of-lime method. Bum.prom. 34 no.6:12-15 Je 59. (MIRA 12:10)

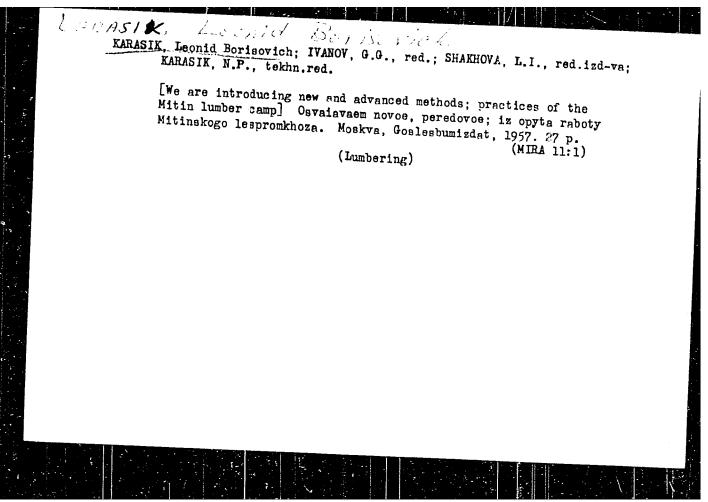
1. Moskovskiv filial TSentral nogo nauchno-issledovatel skogo instituta tsellyuloznoy i bumazhnoy promyshlennosti (for Babushkina, Babayev). 2. Sokol skiy tsellyulozno-bumazhnyy kombinat (for Kir'-yakov, Karasik, Sharapova). 3. Sukhonskiy tsellyulozno-bumazhnyy kombinat (for Krapivin).

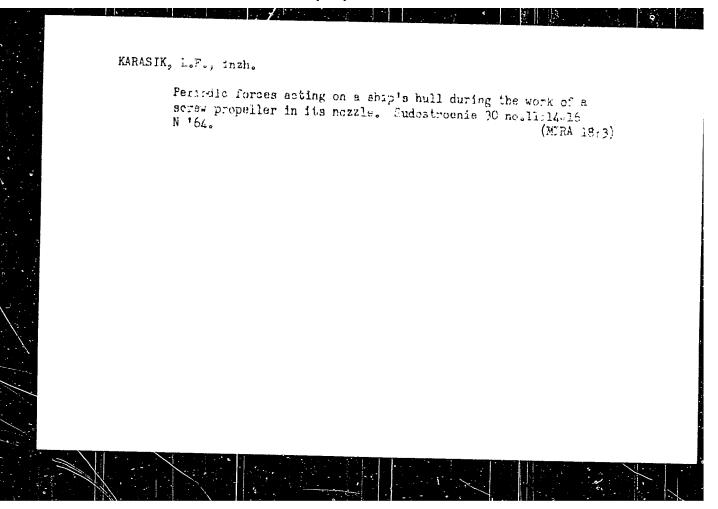
(Gulfite liquor) (Plate towers)

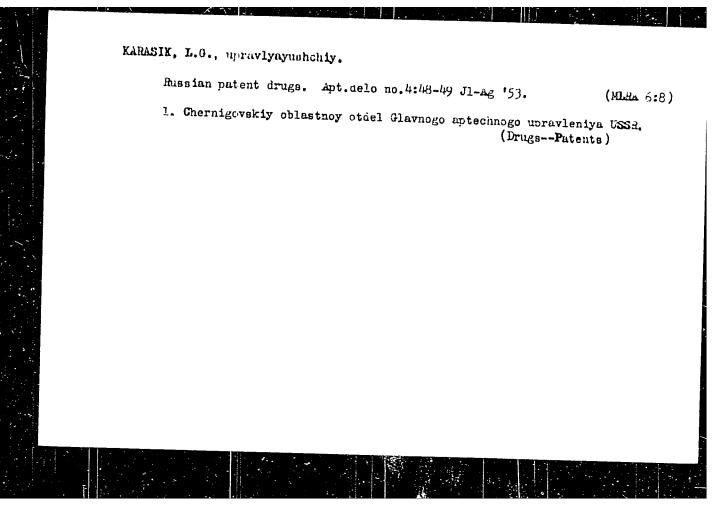
RODIONOV, I.A., kand.tekhu.neuk [deceased] (Kiyev); KARASIK, K.S., inzh. (Kiyev)

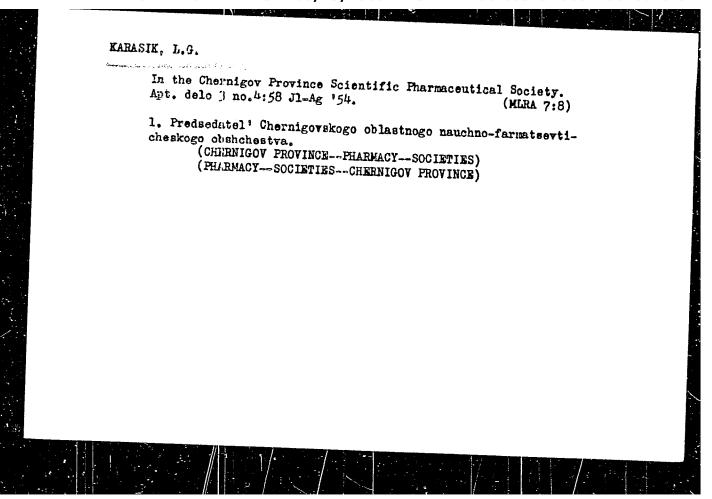
Operation of a water intake structure for frazil ice phenomena.

Vod. 1 :an. tekh. no.10:30-31 0 '64. (MIRA 18:3)









MINIOVICH, I.A.; KARASIK, L.G.

Development of drug enterprises in Chernigov Province. Apt.delo 8 no.5:12-16 S-0 159. (MIRA 13:1)

1. Iz kafedry tekhnologii lekarstvennykh form farmatsevticheskogo fakuliteta Kiyevskogo instituta usovershenstvovaniya vrachey. 2. Upravlyajushchiy Chernigovskim oblastnym aptechnym upravleniyem (for Karssik).

(CHERNIGOV PROVINCE -- DURGSTORES)

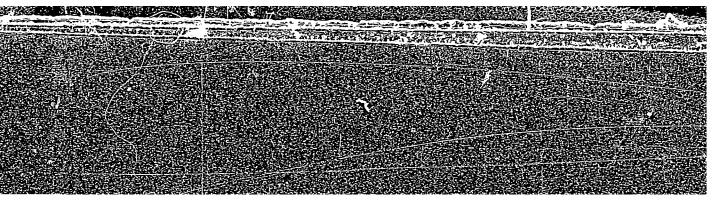
SUB CODE; 20/ SUBM DATE: 17Aug65

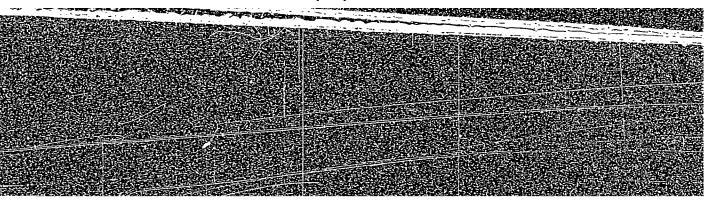
KARASIK, L.O.

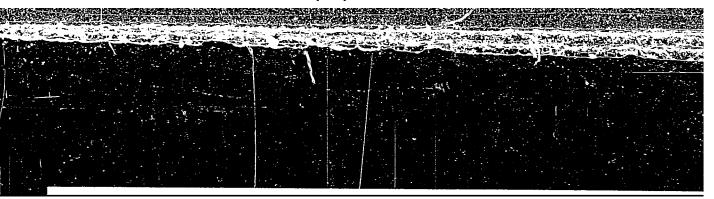
Technology

Mine with round-the clock operation, Moskva, Ugletekhizdat, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.





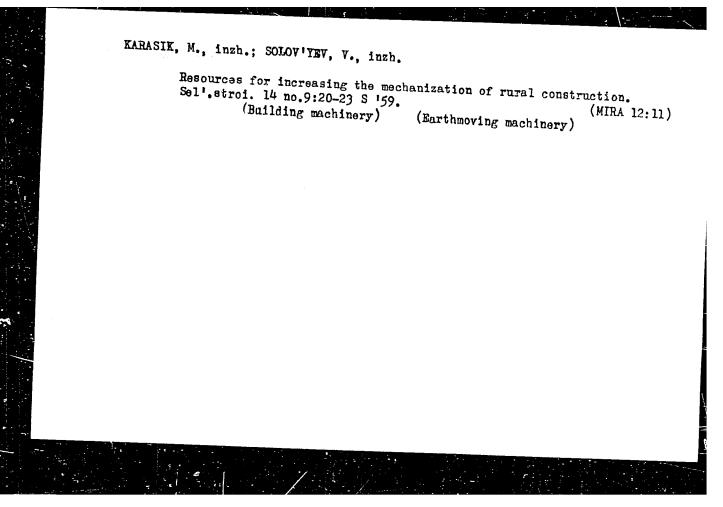


KARASIK, M.

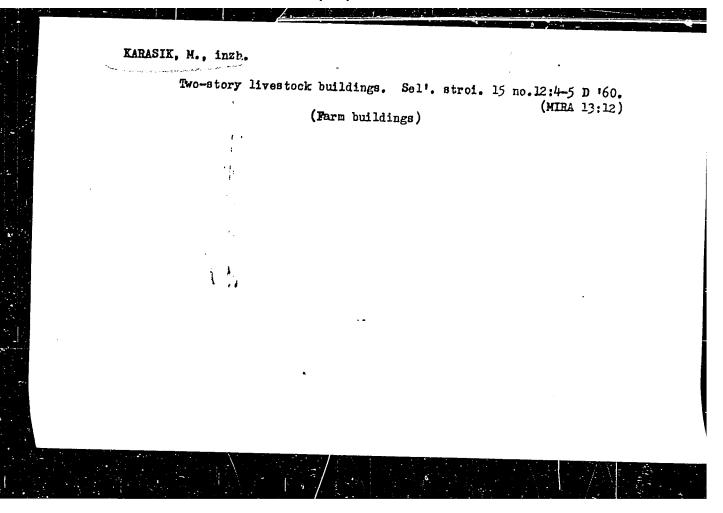
Stock and Stockbreeding

New construction on state stockbreeding farms. Mias. ind. SSER 23 no. 1. 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1958, Uncl.



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620010-3"



KARASIK, M., kand.tekhn.nauk

New rural construction exposition at the Exhibition of National Achievements. Sel'. stroi. 15 no.7:20 Jl '61. (MIRA 14:8) (Moscow--Exhibitions) (Farm buildings--Exhibitions)

Volunteers' aid is urgently needed. Fin. SSSR 23 nc.4:56-57
Ap '62. (MIRA 15:4)

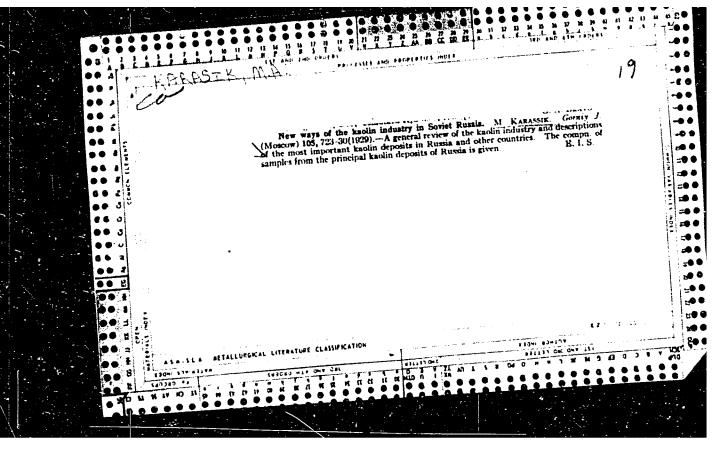
1. Nachal'nik shtatnogo otdela Ministerstva finansov Abkhazskoy
ASSR.

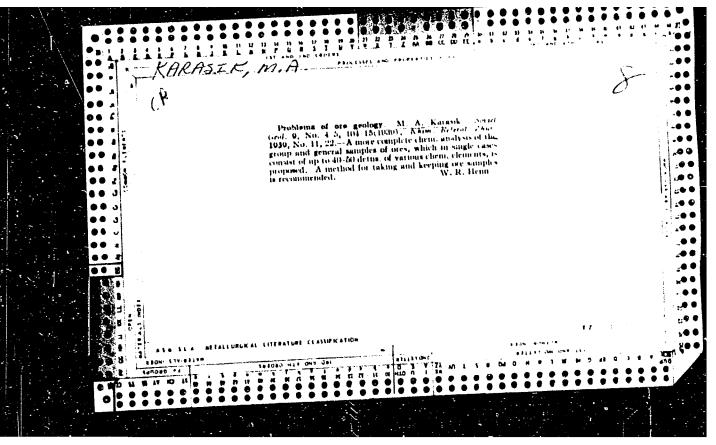
(Abkhazia—Industrial management) (Finance)

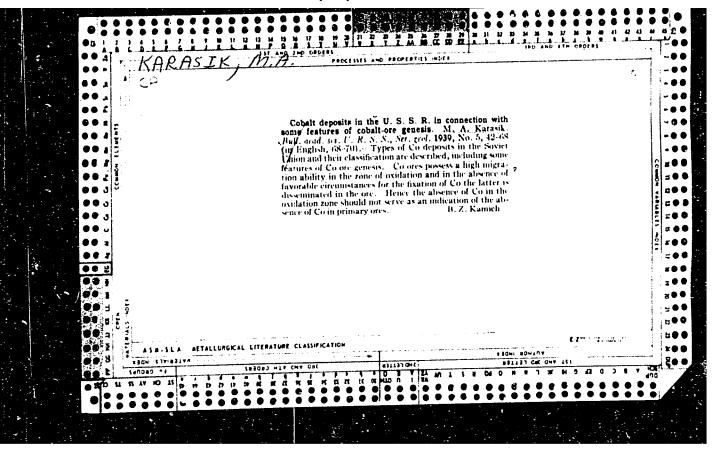
KARASIK, M., kand. tekhn. nauk

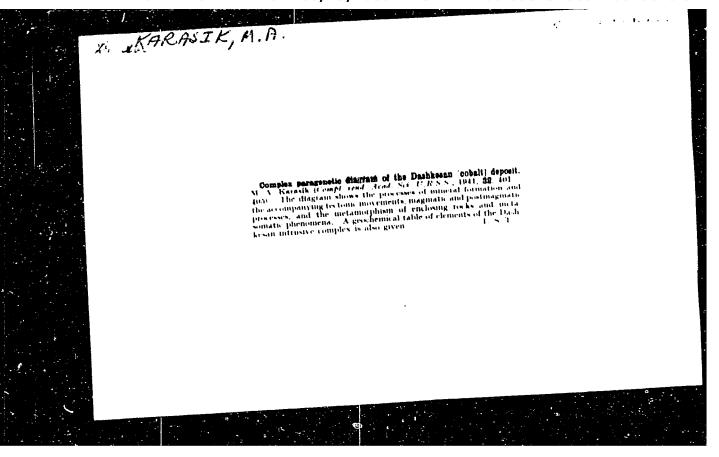
We improve the standard plans of livestock buildings. Sel³. stroi. 18 no.5:18-19 My ⁹63. (MIRA 16:6)

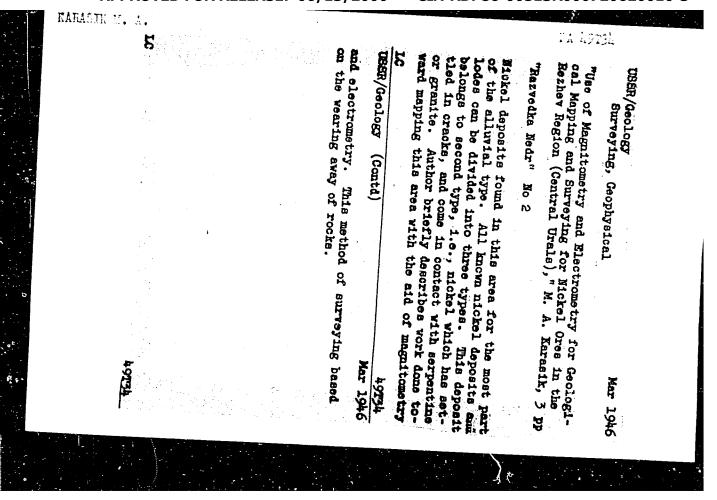
(Farm buildings-Design and construction)











KARASIK, M. A.

PA 53T34

USSER/Geological Prospecting Iron Ore Cobalt Aug 1947

"Regularities of Cobalt Formation in the Pokrovsk Irom Ore Deposits (Northern Urals)," M. A. Karasik, Mining Geol Inst, Ural Br, Acad Sci, 3 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 4

Presents new data on cobalt-bearing capacity of above-mentioned deposits obtained during period 1944-1945. Discusses mineralogy and assumptions made concerning regularities in distribution of sulfides and arsenides in skarn zone. Submitted by Academician V. A. Obruchev, 25 Jan 1947.

T

53T34

PA 1/49T77

KARASIK, M. A.

Detectors

Apr/May/Jun 48

"Content and Fundamental Principles of Construction of Detectors of Minerals," M. A. Karasik, Mining Geol Inst, Ural Affiliate, Acad Sci USSR, 4 pp

"Zapiski V-S Mineral Obshch" Vol IXXVII, No 2

Describes properties of minerals which have significant effect on selection of method for determination of minerals.

1/49177

EARMOLK, M.H.

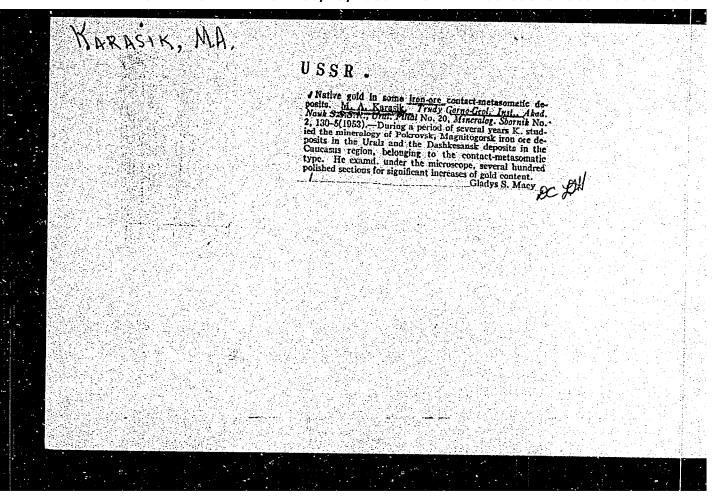
8

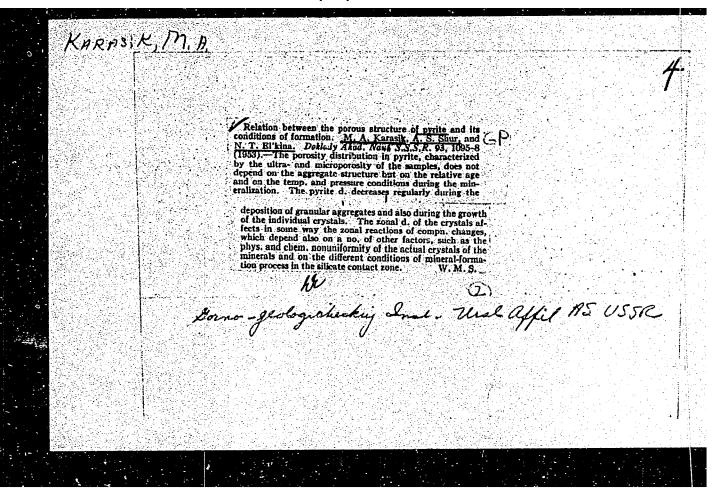
Conditions of formation of mineral pseudomorphs in skarns M. A. Karasik. Doklady Akad. Nauk. N.N. R. 05, 65, 65 (2010) "The discussion concerns especially Feskarns of contact-metasumatic type from Dashkesin, Pokrovsk, Magintogorsk, and some other Ural deposits, and is based on the chem theory of D. S. Korzhinski (Irivit. Akad. Nauk. S.N. R., No. Grof. 1045, No. 3). The pseudomorphis are usually observed in the very intricate mineral associal of the peripheral parts of the skarns, not so much in the coarse-grained nearly monomineralic rocks. The most frequent type of pseudomorphism is that starting from the center to the periphery of the replaced ("Post") mineral, but there are also, as in pyrite and magnetic, "parasits" formations of smallest inclusions of the newly formed minerals, sometimes in crystallographic orientation or in distinct rones, as in garnet, cobalitic, and pyrite.

These conditions indicate that the conen of the mobile reagents in the metassimate solus must have been very low, and the progressive reaction very slow, at temps lowest in the border rones of the skarns. Crystallographically heterogeneous rones, brought about by variations of the chemicompin, opened an easier way along these rones for the metasoniate solus, in reacting with the host crystals. The scarcity of distinct pseudomorphs in skarns is explained by the multiple posthumous reactions which follow the metasomatism, and may have annihilated the characteristic structures; only the marginal rones may have been preserved. A careful microscopic examin, showed even pseudomorphs in the intensely metamorphic rocks of Urahan pyrite-chalogovitic deposits (Zavartskal, Izwellakol, Nauk N.S.R., Net. Geol. 1943, No. 1. In general, pseudomorphs cannot give absolutely rehable evidence for the mineral succession or the reaction conditions in the solutional and the solution of the replacement reactions in distinct parts of a skarn deposit, and its metamorphism.

W. Eitel.

193





KARASIK M.A.

Graphic method for determining quantitative compositions of orestorming minerals in silicate, sulfide, and magnetite ores. Razved.

i okh.nedr 20 no.5:7-13 S-0 154. (MLRA 10:1)

(Ore deposits)

KARASIK, MA.

USSR/ Geology

Card

: 1/1

Authors

: Karasik, M. A.

Title

: Certain laws governing the sulphide mineralization in contact metasomatic magnetite resources.

Periodical

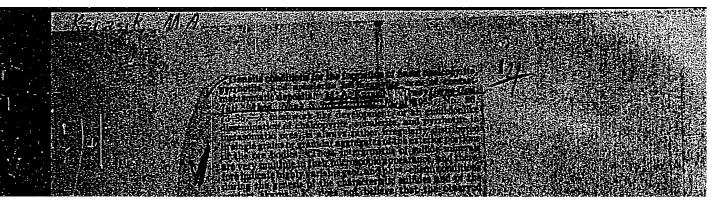
: Dokl AN SSSR, 97, Ed. 1, 137 - 140, July 1954

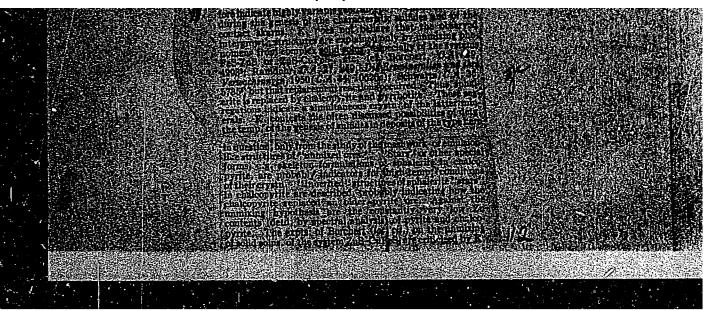
Abstract

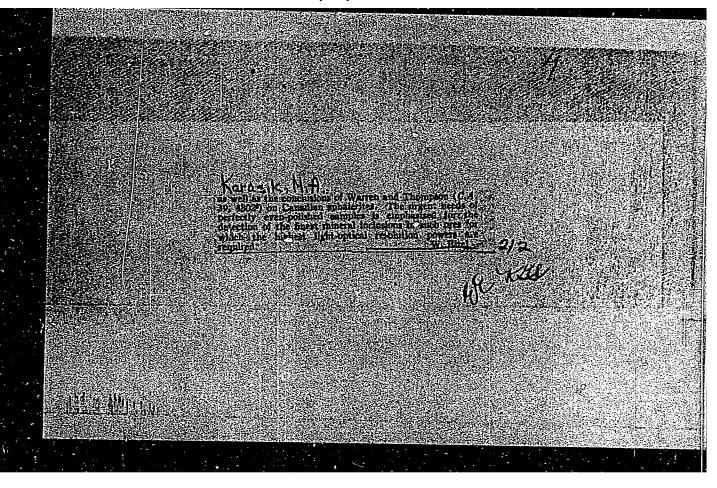
The different composition of contact-metasomatic magnetite deposits, is described. The six industrial minerals found in magnetite ores are outlined. The rules governing sulfide mineralization in contactmetasomatic magnetite deposits, are explained. Six USSR references.

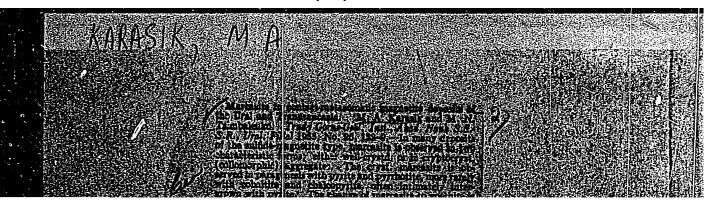
Institution : Acad. of Sc. USSR, Ural Branch, Mining-Geological Institute

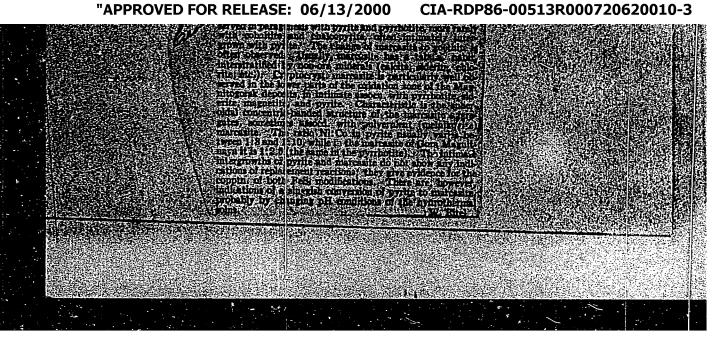
Presented by: Academician, D. S. Korzhinskiy, May 10, 1954











KARASIK, M.A., deystvitel'nyy chlen.

Features of the similarity and qualitative differences between magnatic and contact metasomatic iron-ore deposits. Zap. Vses. min. ob-va 84 no.1:115-120 '55. (MLRA 8:5)

1. Gorno-geologicheskiy institut Ural'skogo filiala Akademii nauk SSSR.

(Iron ores)

.. KARASIK, M.A.

PHASE I BOOK EXPLOITATION

692

Akademiya nauk SSSR. Ural'skiy filial

- Zhelezorudnaya baza Tagilo-Kushvinskogo promyshlennogo rayona (Iron Ore Deposits of the Tagil-Kushva Industrial Area) Sverdlovsk, 1957. 188 p. 1,400 copies printed.
- Resp. Eds.: Ivanov, A. A., Corresponding Member USSR Academy of Sciences (deceased) and Karasik, M. A., Candidate of Geological and Mineralogical Sciences.
- PURPOSE: This book contains papers presented during the 1953 visiting session of the Academic Council of the Mining and Geological Institute of the Ural Branch of the Academy of Sciences, USSR, and affiliated bodies. The book should be of interest to geologists and to personnel in the mining and metallurgical industries.
- COVERAGE: These scientific papers deal with mine geology and various aspects of the mining and metallurgical industries of Tagil-Kushva area. Each paper is separately reviewed in the Table of Contents.

Oard 1/9

Iron Ore Deposits (Cont.)

692

3

5

Ivanov, A. A., Corresponding Member of the Academy of Sciences, USSR, Director of the Mining and Geological Institute of the Ural Branch of the Academy of Sciences (deceased). The Tasks of the Session

In this introductory paper the author mentions briefly the need for a more rapid and efficient exploitation of the natural resources of the Ural area. He deals with the work of the "Uralruda" and "Uralruchermetrazvedka" trusts and calls for better cooperation between scientists and engineers on the job.

Shteinberg, D. S., Candidate of Geological and Mining Sciences, Sverdlovsk Mining Institute imeni V. V. Vakhrushev. The Geological Structure of the Tagil-Kushva Iron Ore District

This paper describes the structure and petrology of the Tagil-Kushva metallogenic province. The deposists of iron ore, iron-copper ore, and manganese ores are reported to be associated with complex gabbrosyenite intrusions. The stratigraphy, syenite intrusions, metamorphism, and the contact-metasomatic iron deposists are briefly discussed. There are 5 Soviet references.

Card 2/0

Iron Ore Deposits (Cont.)

692

Timofeyeva, V. V., Engineer. United Ural Geophysical Trust. The State of Geophysical Survey of the Tagil-Kushva Iron Ore District and Future Plans for Geophysical Exploration of the Area

21

The Tagil-Kushva district has been covered by ground and airborne magnetometer surveys in which numerous anomalies were disclosed. The gamma range and the causes of magnetic anomalies are discussed in this parer and plans exist to carry out more detailed magnetometer surveys and to concentrate on low anomalies and on deep-seated ore bodies. The author acknowledges the assistance of I. A. Zimin, Chief Geologist. There are no references.

Ovchinnikov, L. N., Doctor of Geological and Mining Sciences. Mining and Geological Institute of the Ural Branch of the Academy of Science, USSR. Regularity in the Distribution of Contact Metasomatic Ore Deposits in Central and Northern Urals

28

A large part of the ore deposits in the Ural area is said to be of contact metasomatic origin. The main deposits on this kind are shown on an attached map. A description is given of the east flank of the card 3/9

64

Iron Ore Deposits (Cont.)

692

Central and Northern Urals and the relationship between structure and ore deposits is discussed. As most deposits are believed to be structure-controlled, the exploration for new deposits should be conducted along these lines. Numerous personalities who have worked in this area are mentioned. There are 21 references of which 20 are Soviet, and 1 English.

Karasik, M. A., Candidate of Geological and Mining Sciences. Geological and Mining Institute of the Ural Branch of the Academy of Sciences, USSE. Economic Contact-Metasomatic Deposits of Magnetite in the Tagil-Kushva District and Special Features of Distribution of Associated Elements in the Ores of this Metallogenic Province

The important iron ore deposits in this area are said to be of contact metasomatic origin. These iron ores are associated with cobalt, copper, titanium and rare earths. The association of sulphides with magnetite, and the amount and form of sulphides in cobalt-copper-magnetite ores is analyzed. Some commercial quantities of gold, silver, vanadium and titanium have been found associated with magnetite. There are numerous

Card 11/9-

KARASIK, M.A.		
	PONOMAREV V.N. 3(6,10); 9(6) PHASE I BOUK EXPLOITATION B	07/1924
Alabau anje	Akademiya nauk 553R. Ural'skiy filial. Gorno-geologicheakiy Geofizicheakiy abornik, no. 2. (Collected Papers on Geophysica Sverdlovsk, 1957. 207 p. Issued also as Its Trudy, vyp. 3 Errata slip inserted. 2,400 copies printed.	
	Resp. Ed.: Yu.P. Bulashevich, Doctor of Physical and Mathemati Sciences; Ed.: I.M. Demin; Tech. Ed.: L.A. Immodenova.	cal 5
	FURPOSE: This collection of articles is intended for field ge physicists and exploration party leaders.	o-
	COVERAGE: These articles discuss many new techniques and some tical considerations involved in gravitational, magnetic, a electrical and gamma radiation exploration methods. In 4 a V.M. Ponomarev discusses various aspects of magnetometry; M.I. Khalevin - the study of elastic wave propagation; and G.M. Voskoboynikov - gamma radiation. Extensive bibliograp accompany each articles.	elsmio, rtioles
	Card 1/5	in the second
a salah da s	Harasik, M.A., and W.A. Bugaylo. The Cenetic Relationship of Englitogerskiy Cranitoid Massif With the Eruptive Rocks of Basic Nature	
	Timofeyev, A.H. Computations of the Interpretative Grids for Geophysical Surveys	173
	Timofeyev, A.W. Oraphic Interpretation of Geophysical Anomalies by the Method of Tangents	178
	AVAILABLE: Library of Congress	189
	Card 5/5 MDV/ad 6-15-59	
72 J. A.		

KARASIK, N.A.; BUGAYIO, V.A.

Genetic relation of the Magnitogorsk granitoid massif with the eruptive rocks of basic structure. Trudy Gor.-geol. inst. ro.30: 173-177 '57. (MIRA 11:7) (Magnitnaya Mountain-Rocks, Igneous)

AUTHOR:

Karasik, M.A.

SOV/132-59-9-1/13

TITLE:

Special Features of Distribution of Admixture Elements

in the Compound Magnetite Ores of Certain Contact-

Metasomatic Deposits

PERIODICAL:

Razvedka i okhrana nedr, 1959, Nr 9, pp 1-8 (USSR)

ABSTRACT:

The author describes special distribution features of admixture elements in the compound magnetite ores from certain contact-metasomatic deposits of the Urals. According to him, these peculiarities can be considered

According to him, these peculiarities can be considered as various manifestations of diffusive and infiltrating metasomatosis. The regularity of distribution of certain ores in the same deposits is characterized by the sharp changes in their composition. He shows, by using the Vysokogorskoye and Goroblagodatskoye deposits as an example, that the relative content of sulfides in the magnetite ores increases more than 20 times from the endocontact to the exocontact zones. The author also observes the association of the accumulated chalcopyrites, hematites, and endogenous bor-

Card 1/5

nites with the zones of primary tectonic dislocations

SOV/132-59-9-1/13 Special Features of Distribution of Admixture Elements in the Compound Magnetite Ores of Certain Contact-Metasomatic Deposits

> (Kushvinskoye, Tagil'skoye, and Pokrovskoye deposits) in the upper beds of these deposits, presumably explained by the increased afflux of the oxygen during their formation process. The iron of the primary ores is associated with 3 groups of minerals, the silicates, ferric oxides and sulfides, the last group being the most important from the technological point of view, most admixture elements being associated with sulfides, especially pyrites and chalcopyrites. These elements are sulfur, cobalt, copper, gold, silver, selenium and tellurium. In some deposits small quantities of nickel, molybdenum, tin, arsenic, and other elements were also found. Magnetites and silicates contain titanium, vanadium, manganese, gallium, and less often - cobalt and nickel. In some silicates boron, strontium, and beryllum are also found, whereas the apatites contain phosphorus, fluorine, rare earths and chlorine. As a rule, the increased content of admixture elements associated with silicates and mag-

Card 2/5

Special Features of Distribution of Admixture Elements in the Compound Magnetite Ores of Certain Contact-Metasomatic Deposits

netites is observed in the parts of deposits adjacent to the intrusive rocks or to certain zones of early tectonic dislocations, that is, adjacent to the ways of penetration of ore-forming magmatic solutions. As the distance from these ways increases, the content of admixture elements diminishes. For instance, higher contents of titanium are observed in massive ores associated with high-temperature silicates not containing iron, such as scapolite, orthoclase or diopside. The distribution of admixture elements associated with sulfides is more complicated. In general, the quantity of sulfides contained in the magnetite ores increases regularly towards the ore-containing rocks and farther from the intrusion contact. A direct correlation between the magnetites, pyrites and admixture elements is also observed in the pyrite-magnetite ores, especially those of the Magnitogorsk deposits (Figure 3). This association was probably caused by the fact that the late sulfuric solutions passed through the same

Card 3/5

SOV/132-59-9-1/13

Special Features of Distribution of Admixture Elements in the Compound Magnetite Ores of Certain Contact-Metasomatic Deposits

channels through which the earlier magnetite-forming solutions passed. The sulfuric solution also filled the fissures in the magnetite ore mass and transformed the magnetite and ferrous silicates into pyrites. The author also notes the following peculiarities of distribution of admixture elements in ore-forming minerals: 1) the content of these elements is much higher in ore-forming minerals taken from massive ores than in those from disseminated ores or from the enclosing rocks; 2) a high isomorphic admixture content of an element is indicative of its presence in a significant quantity in other ore-forming minerals of the same ore; 3) the content of earlier generated main ore-forming minerals in ores and their composition is more constant than those of more recent and qualitatively subordinated minerals; 4) the content of dispersed cobalt and of some other elements considerably decreases in recently generated minerals in comparison with the earlier generated minerals. This is explained by the more

Card 4/5